

ABSTRACT OF THE DISCLOSURE

[0046] An apparatus and method is disclosed for inspecting contours formed along a predetermined region of a surface on a workpiece formed of an electrically conductive material using eddy current. A probe includes a longitudinal axis and is moveable along a path of travel to a static testing position stationary with respect to the predetermined region to be inspected on a workpiece. At least two coils are spaced longitudinally from one another and supported by the probe to be electrically excited with a predetermined frequency and amplitude while at the static testing position with the stationary probe. Sensors are provided for measuring the excitation voltage of each coil as eddy currents are induced in the electrically conductive material of the workpiece by the coils supported on the probe stationary at the static testing position with respect to the workpiece. A comparison is performed between the measured eddy current signals from the at least two coils, where a non-zero difference after the coils have encountered the predetermined region to be tested represents an end position of the predetermined region formed on the workpiece being tested.